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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/335,608	06/18/1999	TIMOTHY J. MOULSLEY	PHB-34-257	6666

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EXAMINER

HYUN, SOON D

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

ST

Office Action Summary	Application No. 09/335,608	Applicant(s) MOULSLEY, TIMOTHY J.	
	Examiner Soon D. Hyun	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 06 September 2006.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1,2,4-7,9,12-17,23,24,27,28 and 30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1,2,4-7,9,12-17,23,24,27,28 and 30 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

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PTOL-326 (Rev. 08-06)

Office Action Summary

Part of Paper No./Mail Date 20061121

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4-7, 9, 15-17, 27, 28, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamalainen et al (U.S. Patent No. 6,477,176).

Regarding claims 1, 2, 6, and 9, Hamalainen discloses a telecommunication system suitable for transmitting real-time data (speech) and non-real time packet data, comprising:

a first (a mobile communication system terminal in FIG. 1) and a second communication station (a base station BTS in FIG. 8c);

a dual mode channel for communication of both the real time (speech signals, col. 3, line 30) and the non-real time data (col. 3, line 39) from the first to the second station, wherein the first station comprises a first transceiver which is transmitting both the real-time and the non-real-time data, the second station comprises a second transceiver which receiving the real-time and/or the non-real-time data (col. 3, lines 29-67), the first station further comprises a controller (10) for generating an output data stream (frame structures in FIG. 3) comprising the real-time data (speech signal bits in

FIG. 3), the controller also allocating non-real-time packet data (data, col. 4, lines 25-38) to the output data stream when the data rate of the real-time data is less than the full capacity of the dual mode single channel, i.e., when there is no more speech information to transmit, a few frames of comfort noise frames and a SID frame are sent before transmitting data frames (col. 4, lines 63-65), therefore, the data rate of real time data (speech information) is less than the full capacity of the dual mode single channel during a multiframe period (a period of a last speech frame + a few comfort noise frames + a SID frame) i.e., when there is no more speech information to transmit, a few frames of comfort noise frames and a SID frame are sent before transmitting data frames (col. 4, lines 63-65), therefore, the data rate of real time data (speech information) is less than the full capacity of the dual mode single channel during a multiframe period (a period of a last speech frame + a few comfort noise frames + a SID frame), wherein for at least part of output stream (a multiframe period comprising a speech frame, comfort frames, a SID frames and non-real time frames), the real time data and non-real time packet in the frame each have a respective non-zero minimum bit rate and combined bit rate for the multiframe period is less than a maximum value (a capacity of the channel), wherein the part of the output stream is a single time slot (a multiframe period).

Regarding claims 4 and 7, Hamalainen further discloses that the terminal comprises a buffer (9) for storing the non-real-time packet data for transmission.

Regarding claim 5, Hamalainen further discloses that the invention is applied to a cellular communication system (FIG. 8c) comprising a base station 33 (BTS) as the first transceiver and a mobile station 32 (MS) as the second transceiver.

Regarding claims 15 and 27, refer to the discussion claim 1.

Hamalainen discloses a receiving method (FIG. 2) comprising:

receiving a data stream comprising both real-time data (speech) and non-real time packet data in a single time slot from a transmission channel by a mobile communication system terminal in FIG. 2;

demodulating the data stream by a receiver (13); reading frame header (SP-ID or D-ID in FIG. 3) to determine which frames contain packet data and which frames contain speech data;

reconstituting the speech and packet data; and

providing the speech data to a speech decoder(3) and packet data output signal at distinct output devices (col. 4, lines 1-10), wherein the header indicates both the packet data and speech data being in a single dual mode channel, i.e., the header D-ID in a frame indicates both the packet data and speech data being in a single dual mode channel, because the packet data can be in the channel when the speech data is absent in the frame period, therefore, both speech data and packet data are in a dual mode channel of a multiframe (see the discussion for claim 1) having a plurality of frames.

Regarding claim 16, refer to the discussion for the claim 1.

Hamalainen discloses a method comprising: accumulating non-real time packet data in a buffer (9 in FIG. 1);

allocating real-time data (speech) by a controller (10 in FIG. 1) to an output stream (FIG. 1);

determining when the real-time data does not require the full capacity of a transmission channel, i.e., a VAD (4 in FIG. 1) indicates the time of interruptions in the speech data;

allocating the non-real time packet data to the output data stream, when the real-time data does not require the full capacity of a transmission channel

allocating output data stream to a channel that occupies more than one time slot (a multiframe period).

Regarding claim 17, refer to the discussion for claims 1 and 16.

Hamalainen discloses a method comprising:

accumulating non-real time packet data in a buffer (9 in FIG. 1);

allocating real-time data (speech) and the non-real time packet data in a variable proportions to multiple time slots (a plurality of multiframe period in FIG. 3) within a time frame (a time period assigned for one communication session in GSM system, col. 1, lines 58-62) by a controller (10 in FIG. 1) to an output stream (FIG. 1) when the real-time data does not require the full capacity of a transmission channel; and
transmitting the time frame.

Regarding claims 28 and 30, refer to the discussion for claim 1.

Hamalainen discloses an output data stream or data stream (FIG. 1) including both real-time data (speech) and non-real time data (data from a buffer 9 in a single time slot (a multiframe period)), the frame header D-ID in a frame (FIG. 3) indicates both real time and non-real time data resides in the single time slot , because the packet data can be allocated in the multiframe when the speech data is absent in the frame period. The header SP-ID and D-ID, respectively indicates which part of the time slot has been allocated to the speech data or the packet data.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al (U.S. Patent No. 6,477,176).

Refer to the discussion for claim 1.

However, Hamalainen does not explicitly teach that the data from a computer (6) is multimedia. It will be apparent to those of skill in the art that the computer could transmit and receive multimedia such as voice, video image, and data.

Therefore, it would have been obvious to one having ordinary skill in the art to transmit a first type (video) from the computer, second type (speech) from a microphone (1) and third type data (data) from the computer.

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5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al (U.S. Patent No. 6,477,176) in view of Gudmundson (U.S. Patent No. 5,341,397).

Refer to the discussion for the claim 1.

However, Hamalainen discloses that the invention is generally implemented in GSM (TDMA) and thus, does not explicitly teach that the system could be applicable on a CDMA transmission method. Gudmundson discloses a DTX on a CDMA transmission system.

Those of skill in the art would have been motivated to apply a CDMA protocol using a single spreading code to each mobile for the DTX of Hamalainen to take advantage of using the CDMA such as increasing the system capacity and reducing interference. Therefore, it would have been obvious to one having ordinary skill in the art to apply a CDMA protocol to the DTX of Hamalainen.

6. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al (U.S. Patent No. 6,477,176) in view of Feldman (U.S. Patent No. 6,393,000).

Refer to the discussion for claims 2 and 7.

However, Hamalainen differs from the present application in that the controller receives the timing information from the VAD, while the present application receives it from the speech coding system.

Feldman teaches a speech coder (10 in FIG. 2) for a method of transmission of data during absence of speech signal, wherein a VAD is incorporated into the coder.

Those of skill in the art would have been motivated by Feldman to integrate the VAD (4) of Hamalainen into the speech coding system (speech processing circuit 3) to reduce a occupying space by combining the two circuitries.

Therefore, it would have been obvious to one having ordinary skill in the art for the controller of Hamalainen to receive the timing information from the speech processing circuit integrated with the VAD (speech coding system).

Response to Arguments

7. Applicant's arguments filed 09/06/2006 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues (Remarks page 13, lines 10-13, page 14, lines 8-20,) that Hamalainen does not disclose that a frame defining a single transmission may comprise both real-time data and non-real time data in a part of the output stream, wherein at least part of the output stream is a single time slot. Applicant further argues that a single time slot is used as the smallest time unit in the context of transmitting a data stream within a transmission frame with referring to page 5, lines 5-10 of the specification. Hence, Applicant defines that a single time slot, even given the broadest interpretation possible, is at the most a frame defining a single transmission. Examiner disagrees. In response to Applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., definitions for the frame, single transmission and the time slot are not recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claims 7,16, 17, 28 and 30, Applicant argues (Remarks page 15, lines 5-7) same as claim 1. Therefore, the response is same as claim 1.

Regarding claims 15 and 27, Applicant argues (Remarks page 15, lines 12-14) same as claim 1. Therefore, the response is same as claim 1.

Regarding claims 2-6, 9-11, 21, 24, and 25, Applicant argues (Remarks page 16, lines 2-3) same as claim 1. Therefore, the response is same as claim 1.

Regarding claim 12, Applicant argues (Remarks page 16, lines 14-16) same as claim 1. Therefore, the response is same as claim 1.

Regarding claim 14, Applicant argues (Remarks page 17, lines 7-9) same as claim 1. Therefore, the response is same as claim 1.

Regarding claims 23 and 24, Applicant argues (Remarks page 17, lines 19-20) same as claim 1. Therefore, the response is same as claim 1.

For the reasons discussed above, Examiner believes that the claim rejection is proper.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

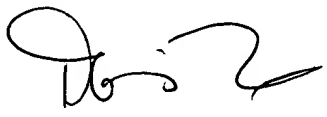
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H. To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


S. Hyun
11/22/2006


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